

REMARKS

Claims 1, 19-23, 29-30, 33-34, 41, 81-82, 86-88, 91-93, 95-97, 102, 109, 114, 116, and 118 have been amended. Claims 24, 94, and 98 have been cancelled. Claims 1-11, 13-23, 25-41, 81-93, 95-97, 99-114, and 116-119 are currently pending in the case. Further examination and reconsideration of the presently claimed application are respectfully requested.

Section 103 Rejections

Claims 1-11, 13-41, 81-114, and 116-119 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,222,624 to Yonezawa (hereinafter "Yonezawa") in view of U.S. Patent No. 5,274,434 to Morioka et al. (hereinafter "Morioka"), U.S. Patent No. 5,585,916 to Miura et al. (hereinafter "Miura"), U.S. Patent No. 6,496,256 to Eytan et al. (hereinafter "Eytan"), and U.S. Patent No. 6,259,108 to Antonelli et al. (hereinafter "Antonelli"). Claims 24, 94, and 98 have been cancelled thereby rendering their rejections moot. As will be set forth in more detail below, the §103(a) rejections of claims 1-11, 13-23, 25-41, 81-93, 95-97, 99-114, and 116-119 are respectfully traversed.

To establish *prima facie* obviousness of a claimed invention, all claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974), MPEP 2143.03. Obviousness cannot be established by combining or modifying the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion or incentive to do so. *In re Bond*, 910 F. 2d 81, 834, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990). The cited art does not teach or suggest all limitations of the currently pending claims, some distinctive limitations of which are set forth in more detail below.

The cited art does not teach or suggest a contact image sensor that is configured to acquire images of a specimen without contacting the specimen and that includes an optical configuration for telecentric collection of the images by a rod lens array of the contact image sensor. Amended independent claim 1 recites in part: "the contact image sensor is configured to acquire images of the specimen without contacting the specimen, and wherein the contact image sensor further comprises an optical configuration for telecentric collection of the images by the rod lens array." Independent claims 41, 81, 82, 86-88, 109, 114,

and 118 recite or have been amended to recite similar limitations. Support for the amendments to the claims can be found in the claims as originally filed.

Morioka, Miura, Eytan, and Antonelli all disclose some type of optical system. However, Morioka, Miura, Eytan, and Antonelli do not teach or suggest that the optical systems are configured for telecentric collection of images of a specimen.

Yonezawa discloses a defect inspecting apparatus and method. However, Yonezawa does not disclose a contact image sensor that is configured to acquire images of a specimen without contacting the specimen and that includes an optical configuration for telecentric collection of the images by a rod lens array of the contact image sensor. For example, Yonezawa teaches an optical system for forming images of a wafer that is substantially different from a contact image sensor. In particular, Yonezawa states that "an optical system for bright field observation, which includes:...a collimator lens 6 having a diameter larger than that of a wafer 8 which is an object to be inspected." (Yonezawa — col. 6, lines 36-43.) Therefore, Yonezawa teaches forming images of a wafer using a collimator lens. However, due to the size of such a collimator lens, e.g., the collimator lens has a diameter greater than the diameter of the wafer, such a collimator lens cannot be included in a contact image sensor. As set forth in the Specification, for example, on page 7, line 8 to page 8, line 13, an optical system that includes the collimator lens taught by Yonezawa has a number of disadvantages that are overcome by the presently claimed systems and methods. Such advantages of the presently claimed systems and methods over systems and methods such as those taught by Yonezawa are described in the Specification, for example, on page 24, line 21 to page 28, line 8.

Moreover, it is known to one of ordinary skill in the art that scaling down the size of an optical element such as the collimator lens of Yonezawa may substantially alter the characteristics of the optical element, particularly since the size of the lens of Yonezawa would have to be scaled down dramatically from the size of a wafer to a size that could be included in the presently claimed contact image sensor. Accordingly, there is no reasonable expectation of success that the collimator lens of Yonezawa could be reduced in size to such a degree that it could be included in a contact image sensor while retaining its performance characteristics. Therefore, it would not be obvious to one of ordinary skill in the art to attempt to use the collimator lens of Yonezawa in a contact image sensor since the prior art does not suggest a reasonable expectation of success in doing so. The prior art can be modified or combined to

reject claims as *prima facie* obvious as long as there is a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). MPEP 2143.02. As such, Yonezawa cannot be combined with any of the other cited art or any combination thereof to overcome the deficiencies in the teachings contained therein.

For at least the reasons set forth above, the cited art does not teach or suggest a contact image sensor that is configured to acquire images of a specimen without contacting the specimen and that includes an optical configuration for telecentric collection of the images by a rod lens array of the contact image sensor, as recited in claims 1, 41, 81, 82, 86-88, 109, 114, and 118. Consequently, the cited art does not teach or suggest all limitations of claims 1, 41, 81, 82, 86-88, 109, 114, and 118.

For at least the reasons set forth above, claims 1, 41, 81, 82, 86-88, 109, 114, and 118 are patentably distinct over the cited art. Therefore, claims dependent therefrom are also patentably distinct over the cited art for at least the same reasons. Accordingly, removal of the § 103(a) rejections of claims 1-11, 13-23, 25-41, 81-93, 95-97, 99-114, and 116-119 is respectfully requested.

Change of Correspondence Address

The Commissioner is respectfully requested to send all further communications regarding this application to the following address:

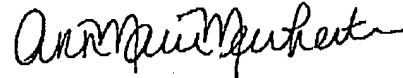
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CONCLUSION

This response constitutes a complete response to the issues raised in the Final Office Action mailed December 16, 2004. In view of the remarks presented herein, Applicants assert that pending claims 1-11, 13-23, 25-41, 81-93, 95-97, 99-114, and 116-119 are in condition for allowance. If the Examiner has any questions, comments, or suggestions, the undersigned earnestly requests a telephone conference.

The Commissioner is authorized to charge any fees, which may be required, or credit any overpayment, to deposit account number 50-3268/5589-02701.

Respectfully submitted,



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